

Application No.: 10/701200
Docket No.: CL1596USDIV

Page 2

Amendments to Claims

Claims 1- 27 (Canceled)

Claim 28 (Previously Presented). A method for the production of a feed product comprising protein, carbohydrates and pigment comprising the steps of:

- (a) providing a high growth methanotrophic bacterial strain which:
 - (1) grows on a C1 carbon substrate selected from the group consisting of methane and methanol; and
 - (2) comprises a functional Embden-Meyerhof carbon pathway, said pathway comprising a gene encoding a pyrophosphate dependent phosphofructokinase enzyme, the gene selected from the group consisting of:
 - (i) an isolated nucleic acid molecule encoding the amino acid sequence as set forth in SEQ ID NO:6; and
 - (ii) an isolated nucleic acid molecule that hybridizes with (a) when washed with 0.1X SSC, 0.1% SDS, 65°C;b) contacting the bacterial strain (a) with a C1 carbon substrate in a suitable medium for a time sufficient to permit the expression and accumulation of the feed product; and
- c) optionally recovering the feed product.

Claim 29-32 (Canceled).

Claim 33 (Original). A method for the production of production of a feed product comprising protein, carbohydrates and pigment comprising:

- a) providing a high growth methanotrophic bacterial strain comprising a functional Embden-Meyerhof pathway;
- b) contacting the bacterial strain of step (a) under suitable growth conditions with an effective amount of a C1 carbon substrate whereby the feed product is produced; and
- c) optionally recovering the feed product.

Claim 34 (Canceled)

Claim 35 (Currently Amended). A method according to anyone of Claims ~~32-34~~28 or 33 wherein the functional Embden-Meyerhof pathway contains a gene encoding a pyrophosphate dependent phosphofructokinase enzyme.

Claim 36 (Currently Amended). A method according to anyone of Claims ~~32-34~~28 or 33 wherein the C1 substrate is selected from the group consisting of methane, methanol, formaldehyde, formic acid, methylated amines, and methylated thiols.